

WE CLAIM:

1. An access control system, comprising:

- (a) a plurality of identity badges including symbols located on each identity badge;
- (b) a computer network for exchanging information between devices connected to said computer network;
- (c) a video camera coupled to said computer network and operative to record digital images and send said digital images over said computer network;
- (d) a badge reading computer connected to said computer network, said badge reading computer having access to said digital images and operative to execute symbol recognition software to identify said symbols on said identity badges from said digital images;
- (e) a database coupled to said badge reading computer containing identity information and access control information associated with said symbols on each said identity badge; and
- (f) an access control computer connected to said computer network, operative to receive badge identity data from said badge reading computer and control access to a secure area.

2. An access control system according to claim 1, wherein said symbols are bar codes.

3. An access control system according to claim 1, wherein said symbols are color-coded.

4. An access control system according to claim 1, wherein access to said secure area is controlled by an electronic door lock which receives control messages from said access control computer over said computer network.

5. An access control system according to claim 1, further comprising a two-way audio system to allow a person stationed at said access control computer and a person located near said video camera to communicate bi-directionally.

15 6. An access control system according to claim 1, further comprising a one-way audio system to allow a person stationed at said access control computer to communicate with a person located near said video camera.

20 7. An access control system according to claim 1, further comprising a one-way audio system to allow a person located near said video camera to communicate with a person stationed at said access control computer.

25 8. An access control system according to claim 1, further including a video recording system operative to record said digital images, said user information and said access control information.

9. An access control system according to claims 8, wherein said video recording system also records an audio feed from the area shown in said digital images.

5 10. An access control system according to claim 1, wherein said access control computer uses face verification software on said digital images to control access.

10 11. An access control system according to one of claims 5 and 7, wherein said access control computer uses voice verification to control access.

15 12. An access control system according to claim 1, wherein said access control computer is automated and capable of controlling access without an operator.

13. An access control system according to claim 1, wherein said access control computer is monitored and controlled by an operator.

20 14. An access control system according to claim 1, wherein said access control computers counts the number of badges viewed and the number of persons who gain access.

25 15. An access control system according to claim 1, wherein a plurality of video cameras are connected to said computer network.

30 16. An access control system according to claim 1, wherein said badge reading computer and said access control computer are integrated into one computer.

17. An access control system according to claim 1, wherein
said badge reading computer, said database and said access
control computer are integrated into one computer.

5 18. An access control system according to claim 1, wherein
said badge reading computer is integrated into said camera.

10 19. An access control system according to claim 1, wherein
said badges and said symbols can be used to reprogram one
of: said camera, said badge reading computer, said access
control computer, and a combination thereof.

20. An access control system, comprising:

15 (a) a plurality of identity badges including symbols
located on each identity badge;

(b) a computer network for exchanging information
between devices connected to said computer
network;

20 (c) a video camera operative to record and send analog
images;

(d) an analog-to-digital converter coupled to said
computer network, operative to convert said analog
images to digital images, said digital images then
sent over said computer network;

25 (e) a badge reading computer connected to said
computer network, said badge reading computer
having access to said digital images and operative
to execute symbol recognition software to identify

5 said symbols on said identity badges from said digital images;

10 (f) a database coupled to said badge reading computer containing identity information and access control information associated with said symbols on each said identity badge; and

15 (g) an access control computer connected to said computer network, operative to receive badge identity data from said badge reading computer and control access to a secure area.

21. An access control system according to claim 20, wherein said symbols are bar codes.

25 22. An access control system according to claim 20, wherein said symbols are color-coded.

30 23. An access control system according to claim 20, wherein access to said secure area is controlled by an electronic door lock which receives control messages from said access control computer over said computer network.

24. An access control system according to claim 20, further comprising a two-way audio system to allow a person stationed at said access control computer and a person located near said video camera to communicate bi-directionally.

35 25. An access control system according to claim 20, further comprising a one-way audio system to allow a person

stationed at said access control computer to communicate with a person located near said video camera.

26. An access control system according to claim 20, further
5 comprising a one-way audio system to allow a person located near said video camera to communicate with a person stationed at said access control computer.

27. An access control system according to claim 20, further
10 including a video recording system operative to record said digital images, said user information and said access control information.

28. An access control system according to claims 27,
15 wherein said video recording system also records an audio feed from the area shown in said digital images.

29. An access control system according to claim 20, wherein
said access control computer uses face verification software
20 on said digital images to control access.

30. An access control system according to one of claims 24
and 26, wherein said access control computer uses voice
verification to control access.

25 31. An access control system according to claim 20, wherein
said access control computer is automated and capable of
controlling access without an operator.

32. An access control system according to claim 20, wherein said access control computer is monitored and controlled by an operator.

5 33. An access control system according to claim 20, wherein said access control computers counts the number of badges viewed and the number of persons who gain access.

10 34. An access control system according to claim 20, wherein a plurality of video cameras are connected to said computer network.

15 35. An access control system according to claim 20, wherein said badge reading computer and said access control computer are integrated into one computer.

36. An access control system according to claim 20, wherein said badge reading computer, said database and said access control computer are integrated into one computer.

20 37. An access control system according to claim 20, wherein said badge reading computer is integrated into said camera.

25 38. An access control system according to claim 20, wherein said badges and said symbols can be used to reprogram one of: said camera, said badge reading computer, said access control computer, and a combination thereof.

30 39. A method of controlling access to a secure area, comprising:

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- (a) recording a digital image of a person and an identity badge with a camera;
- (b) transmitting said digital image to a computer;
- (c) retrieving identity information and access control information from a database based on symbols on said identity badge;
- (d) comparing said identity information with said person in said digital image; and
- (e) allowing access when a positive result arises from said comparison step.

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40. The method of claim 39, wherein said comparison step is performed by a human operator.

15 41. The method of claim 40, wherein said comparison step is based on face verification.

42. The method of claim 40, wherein said comparison step is based on voice verification.

20 43. The method of claim 39, wherein said comparison step is automatically performed by a computer.

44. The method of claim 43, wherein said comparison step is 25 based on face verification.

45. The method of claim 43, wherein said comparison step is based on voice verification.